



IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Eric DeLano

Confirmation No.: 8893

Application No.: 10/044,401

Examiner: Lee, Christopher

Filing Date: 1/11/2002

Group Art Unit: 2112

Title: CUSTOMIZED PORTS IN A CROSSBAR AND METHOD FOR TRANSMITTING DATA
BETWEEN CUSTOMIZED PORTS AND SYSTEM AGENTS

Mail Stop Appeal Brief-Patents
Commissioner for Patents
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TRANSMITTAL OF REPLY BRIEF

Sir:

Transmitted herewith in **triplicate** is the Reply Brief with respect to the Examiner's Answer mailed on 1/5/2006. This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

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10016664-1

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Eric DeLano)
Serial No. 10/044,401)
Filed: January 11, 2002)
For: CUSTOMIZED PORTS IN A)
CROSSBAR AND METHOD FOR)
TRANSMITTING DATA BETWEEN)
CUSTOMIZED PORTS AND SYSTEM)
AGENTS)
Group Art Unit: 2112)
Confirmation No. 8893)
Examiner: Lee, Christopher E.)

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Appr. February 20, 1998

REPLY BRIEF PURSUANT TO 37 CFR §§ 41.39(b)(2) & 41.41

The Examiner's lengthy 26 page Answer is basically a rehash of the rejections that have been made during prosecution. With the withdrawal of the § 112 rejection, this appeal revolves around the correctness of the Examiner's interpretation and characterization of the Yokoyama reference, and whether it actually does or fails to anticipate claims 1, 3, 6-8 and 11-13, and whether it is effective as the primary reference in the § 103 rejections of claims 16 and 17. The Examiner sets forth other § 103 rejections based upon the combination of Yokoyama with other references, but it is clear that the pending claims will either stand or fall based upon the interpretation and characterization of the Yokoyama reference.

It is noted that the Examiner finally obtained an official translation of the Yokoyama patent for use by the Board, even though Applicant had requested such a translation at the time of the initial office action. It is believed that this Schreiber translation is a more accurate and understandable description of the Yokoyama reference than two other translations that were used by Applicant's attorney, and that it undercuts the Examiner's positions in some important respects.

Yokoyama does not anticipate, teach or suggest any of the pending claims for the reasons that were set forth in appellant's main brief and because the Yokoyama crossbar switch device, as described in the Schreiber translation of July 2005, does not operate in a manner that meets the claim language of independent claims 1, 12, 16 and 17 or in the manner as described by the Examiner.

More particularly, Yokoyama does not anticipate the crossbar of claim 1 because it does not have "crossbar controlled data ...containing control information for **formatting bit length of data** from an input port to be transmitted to an output port having **less width** than the input port." It also does not anticipate the method of claim 12, including, *inter alia*, the steps of "obtaining the width of the output port when the **width of the input port is greater than the width of the output port**" and "**formatting the data** from the input port to data configured for the obtained width of the output port." Yokoyama fails to anticipate, teach or suggest the system of claim 16 and particularly the elements, *inter alia*, of "obtaining the width of the output port **when the width of the input port is greater than the width of the output port**", and "**formatting the data** from the input port to data configured for the obtained

width of the output port. Yokoyama similarly fails to teach or suggest the machine of claim 17 which includes, *inter alia*, the same elements of obtaining and formatting as are set forth in claim 16.

The reason that these claims are not anticipated, taught or suggested by Yokoyama, applied singularly or in combination with other patents of record is because Yokoyama simply does not format the length of data from an input port to be transmitted to an output port having less width than the input port as is claimed in claim 1, or the formatting steps as set forth in claims 12, 16 and 17 in the context of those claims. While the Examiner attempts to *infer* such formatting, the operation of Yokoyama is actually different than the Examiner describes and the Yokoyama device does not operate in the manner as is claimed in these independent claims 1, 12, 16 and 17.

The Yokoyama crossbar operates differently than is claimed as will be discussed in connection with the Schreiber translation. At page 12, paragraph 0011, it states “[T]he data width-variable crossbar switch device of the present invention is characterized by the fact that in the data width-variable crossbar switch device that has several ports with the same data width to which several boards are respectively connected and connects the above-mentioned boards via the above-mentioned several ports, when the data width of the communicating boards is **different, the communication with other boards is carried out via an empty port among the ports to which the boards with a wide data width are connected.**

Paragraphs 0012, 0013, 0014, 0015, 0016, 0017 and 0018 that are on pages 13-15 state similarly, e.g., "...a control program makes a processor implement a communication with other boards via an empty port among the ports to which the boards with a wide data width are connected when the data width of the communicating boards is different." (Para. 0016).

Paragraph 0017 on page 15 also states, "In other words, in the data width-variable cross switch device of the present invention, **when the data width of the communicating boards is different, the communication with other boards can be carried out by an empty board of the boards with a wide data width.**"

Thus, in these five pages from page 12 through page 16, where the "means to solve the problem" (i.e., a summary of the invention) is described, there is no discussion whatsoever about reformatting the data when the data width of the input and output are different.

At page 4 of the Examiner's answer, the Examiner applies Yokoyama to claim 1 and particularly the second element involving crossbar control data and cites paragraphs 0148, 0149, 0154 and 0155 as describing the operation of Yokoyama that anticipates this element. Yet, when these four paragraphs are examined there is a notable absence of any discussion relating to formatting the data.

Paragraph 0149 is stated to describe Figure 24 wherein case "C6 shows the case where a band of 128 bits can be secured when data of 256 bits are transferred to a 128 bit port." The Examiner apparently believes that if data of 256 bits is transferred to a 128 bit port, there necessarily or inherently must be formatting of the

data. Applicant contends that this is not so, particularly when the description of case C6 is studied elsewhere in the translation.

More particularly, paragraph 0184 (beginning on page 64) states that “[T]he crossbar switch side address control part 61-1 at the request side transmits the band securing disabled signal as it is to the Board (processing C5-3). Then, the transfer request of the controller 22-1 of the convention device is carried out. If the retransmission in the conventional device is output by the reception side, this method can be used as it is by requesting up to the controller 22-1 of the conventional device at the reception side (see Figs. 33 and 34).”

Continuing in paragraph 0185, “[I]n the case where a band of 128 bits can be secured when data of 256 bits are transferred to a 128-bit portion (the case C6), the crossbar switch side address control part 61-1 at the **request side sends a transfer request to any of two address lines**. The crossbar switch side address control part 61-1 at the supply side detects the transfer request of the address line (processing C6-1).”

The next paragraph 0186 states “[T]he crossbar switch side address control part 61-1 at the supply side replies a transfer OK to the address line in the main transmission port. If the transfer OK is confirmed from the address line, the crossbar switch side address control part 61-1 at the request side transmits the transfer OK to the board (processing C6-2).”

Continuing, paragraph 0187 then states “[T]hen, the request side carries out the above-mentioned processing C2-3 to C2-5 and C1-8 to C1-10. Also, if the

processing C6-2 is carried out, the supply side inputs the signal and the data from the controller 22-1 of the conventional device as they are (see Figures 35 and 36).” The translation of Figures 35 and 36 are located on respective pages 104 and 93 of the Schreiber translation and neither translation describes steps that would reveal formatting during the process.

The above description of the operation of case C6 indicates that a 256 bit bandwidth on an input port that is to be transferred to a 128 bit output port is **actually accomplished by assigning two 128 bit bandwidths in which to accommodate the 256 bit input**. This is because the address control part 61-1 sends a transfer request to **two address lines**.

This described operation is also in accord and entirely consistent with the discussion on pages 12-15 which essentially states that communication between ports of different sized data width is carried out by an empty port among the ports to which the boards with the wide data are connected. This described operation is further underscored by the fact that in the entire translation, there is no discussion whatsoever, at least as determined by the undersigned, that any reformatting is ever undertaken or accomplished. Certainly, there is nothing that even approaches the discussion contained in the specification of the present application on page 12, lines 8-11: “For example, if a 24 bit width input port requests to transmit data to an output port with an 8 bit width, the data will then be shifted or divided into 8 bit[s] for each transmission. Since there are 24 bits total, the data will be transmitted 8 bits at a time until all 24 bits are sent.”

The law of anticipation is that a prior art reference anticipates a patent claim if that single reference discloses, either expressly or inherently, all limitations of the claim. *Finnigan Corp. Int'l Trade Comm'n*, 180 F.3d 1354, 1365 (Fed. Cir. 1999). A claim limitation is inherently disclosed if a person of ordinary skill in the art would recognize that the limitation is necessarily satisfied by the reference. *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268-69 (Fed. Cir. 1991). Here, that test is not satisfied. The Yokoyama reference describes the operation of its crossbar device in a manner that is different from that which is claimed by applicant. Even considered in a light most favorable to the Examiner, it is ambiguous as to its operation. It is submitted that a person of ordinary skill in the art would not recognize that the Yokoyama reference satisfies all elements of the pending claims.

The Examiner's argument that formatting is inherent is simply unsubstantiated speculation, and should not to be relied upon to defeat patentability. The pending claims should be allowed and the application passed to issue. Such action is respectfully requested.

Respectfully submitted,

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